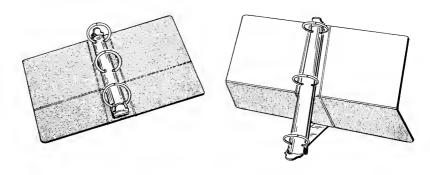# Agri-Calc
FEEDER PIG MODULE

A Profit Analysis Program showing price relationships based on seventeen actual or estimated feeder pig finishing factors.

ADVANCED OPERATING SYSTEMS

NOTE: SPECIAL BINDER FEATURE

Lay Flat   or   Stand-Up

LIMITED WARRANTY

Agri-Calc
FEEDER PIG MODULE

by Jack O. Beasley

Feeder Pig

LOADING INSTRUCTIONS

If you own a *TRS-80* *Model I,* all you have to do to run the Feeder Pig Profit Analysis Program is to put the program disk in drive 0 and press the reset button on the left rear of the keyboard unit. The Feeder Pig program will automatically load itself from the disk and run.
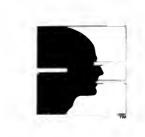
If you own a *TRS-80 Model III,* you will have to convert the program so that it will run on your machine. To do this, place a TRSDOS* system disk with plenty of free space on it in drive 0 and the Feeder Pig program disk in drive 1. In response to the *"TRSDOS Ready"* prompt, type "CONVERT" and press ▓▓▓ . When the computer asks you for the *"Source Drive",* type ▓ ▓▓▓ ; when it asks you for the *"Destination Drive",* type ▓ ▓▓▓ . It will now automatically transfer all of the files you need from the Feeder Pig program disk to the TRSDOS disk in drive 0. After this is finished (when you see "TRSDOS Ready" again), type "AUTO DO BEGIN", press ▓▓▓ , and wait until the disk drive stops turning. Now to run the Feeder Pig Profit Analysis Program all you have to do is place the disk you transferred the Feeder Pig program to in drive 0 and press the orange reset button to the right of the numeric keypad on the keyboard. The Feeder Pig program will automatically load itself from the disk and run. If you use an operating system other than TRSDOS on your Model III, you will need to look up how to convert a Model I disk to run on your operating system in your user's manual. To use the Feeder Pig program after you have converted it, enter BASIC with one file buffer reserved, load the file PIG from the disk, type "RUN" and press ▓▓▓ .

Remember, you should make a backup copy of your Feeder Pig program disk as soon as possible and put the original away for safekeeping. If you are using a Model III, you can make as many copies as you need through the CONVERT procedure described above. If you are using a Model I, after you have loaded the Feeder Pig program from the disk, press the ▓▓▓ key (on the upper right corner of the keyboard). When you see "READY" and a ">" sign, type "CMD" and press ▓▓▓ . The disk drive will come on again and after a few seconds you will see some information at the top of the screen, followed

by the words "DOS PLUS". Now type "BACKUP" and press [ENTER] .
After the computer reads from the disk again it will ask you for a
"source drive number". If your Feeder Pig Program disk is in drive 0,
answer 0. Then it will ask you for a "destination drive number", which is
the number of the drive that you are going to copy Feeder Pig to (if you
have only one disk drive, this will be 0 too). Then type in the date in the
form that the computer shows you on the screen (for instance, April 5,
1982 would be "04/05/82"). The computer will now copy the Feeder
Pig Program disk to another disk. If you have only one disk drive, you
will have to switch the two disks several times. The computer will tell
you when to switch them. (Remember, the original Feeder Pig program
disk is the "source disk" and the other disk is the "destination disk".)
After the computer is through making the copy, you should use the new
Feeder Pig disk (the one you copied to) and put the original away in a
safe place. Simply place the copy in drive 0 and press the reset button,
just like before.

TABLE OF CONTENTS

FEEDER PIG MODULE

INTRODUCTION

The "Feeder Pig Profit Analysis" computer program is designed to be used with your personal computer as a model of your particular hog producing operation. This model will aid you in evaluating the profit-ability of finishing feeder pigs. You will specify various input data, such as purchase and selling prices, feed prices, etc. With this information, the program will present a number of reports such as profit analysis and break-even selling and buying prices. The program also gives you a complete "What-If?" capability that allows you to analyze completely the effect any data item has on profit, cost of money, value of corn, and break-even buying and selling prices.

You should use this documentation with the Feeder Pig Program. The following chapters explain all the capabilities of the program. Chapter 1 is an overview of the program and gives you a summary of what the program can accomplish. Chapter 2 is a tutorial that will take you through all the functions of the program in a step-by-step procedure. Work through this tutorial to gain hands-on experience in running the program.

Chapters 3 through 9 give you detailed explanations of all the functions the program can perform. Detailed explanations of the input and output data are given along with complete discussions of the various reports and charts. Please read the material carefully in order to understand the full capabilities of the program. While reading this documentation, you will also learn how to interpret the various charts and reports.

The Feeder Pig Program is patterned after programs developed by some of the leading agricultural universities. This type of farm manage-ment program has been used successfully on larger computer terminals associated with numerous Cooperative Extension Services. The validity of the program has been well tested but it depends on the data that you enter. You should understand how the program uses your data so that you will know what data it needs.

We hope you will enjoy and profit from using this program.

Chapter 1

OVERVIEW

The Feeder Pig Profit Analysis computer program was developed to assist the hog producer in evaluating the profitability of finishing feeder pigs. Producers need to know how much they can afford to pay for feeder pigs based upon expected future market hog prices. They need to know what price they would need to receive for market hogs if they paid the current market price for feeder pigs. They also need to know how much their money would be worth if invested elsewhere. It is good business to estimate the profit potentials carefully before buying feeders. Profits cannot be predicted with certainty, but it is possible to estimate the price necessary to recover the cost of the animal, feed, and other expenses incurred in the production of market hogs.

The break-even selling price can be compared with the expected future market hog price to help the operator decide whether a purchase would be profitable. Using the expected future market hog price and the expense data already in the computer, the highest price that should be bid for feeder pigs can be calculated.

On entering market information, costs, production information, and a ration program, the program will produce various reports that will aid the producer in making a profit analysis of his operation. One of the reports presents a budget (actual P/L report if data is based on past actual figures) of the income and expenses per head, per hundred weight sold, and per hundred weight of gain. This report also outputs the total costs and profits based upon how many hogs are planned for raising. Also included is the cost of money invested in the operation over the planned feeding period. Another report contains information on the effect that alternative price relationships have on profits. Alternative sale prices for market hogs, purchase prices for feeder pigs, and corn prices are used to calculate the break-even feeder pig and market hog prices. The program also calculates the value of the corn fed to hogs under various combinations of purchase and sale price.

One distinct advantage the computer has is its ability to do very fast calculations and recalculations. The Feeder Pig Profit Analysis

Program takes full advantage of this capability in the "What-If?" section. This part of the program allows you to select any one of the seventeen data items, change its value and observe the resulting change in the net profit, cost of money, value of corn, break-even buying prices, and break-even selling prices of the complete operation. In other words, you have the ability to see at a glance the net profit and the percent change from the original net profit resulting from a particular change in any of the input data. This ability is also available for the cost of money, value of corn, break-even buying prices, and break-even selling prices.

In summary, the Feeder Pig Profit Analysis Program constructs a dynamic computer model of your own feeder pig operation. It allows you to change any or all of the items in order to see how they effect various results such as profit, cost of money, break-even selling and buying prices, and the value of corn fed.

With this dynamic model, you now have the basis for analyzing your particular operation at all times. This will allow you to make better decisions both before you set up your operation and after the operation is completed.

Chapter 2

TUTORIAL (RUNNING THE PROGRAM)

The purpose of this section is to familiarize you with running the Feeder Pig Profit Analysis Program from beginning to end. By following this step by step procedure, you will gain hands-on experience with all aspects of the program from entering data to printing out the various reports. You will proceed through all sections of the program, trying them one at a time. Don't worry if you do not completely understand every part. This will be picked up in later chapters.

The Feeder Pig Program comes with default (example) data built-in. This means that every time you load the program into the computer, it will always be ready to run with this data. As you learn to operate the program, you will enter your own data which will override the default data. For this tutorial, the default data will be used throughout. From this data, the various reports will be created along with demonstrating all the functions of the program. The details of the inputs, reports, and charts are explained in Chapters 3 through 9.

Tutorial

Step 1. — Loading and Starting the Program

The first step is to load the program into your computer. If you own a TRS-80 Model I, you can do this by putting the program disk into drive 0 and pushing the reset button. The Feeder Pig Profit Analysis Program will automatically load itself and run. If you own a TRS-80 Model III, you will have to convert the program to run on your computer before you load it. See the Loading Instructions at the beginning of this manual to see how to do this.

The program starts when you first see the header. This will last for a few seconds and then a new screen will appear showing the MAIN MENU.

```
→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→
FEEDER PIG PROFIT AND LOSS ANALYSIS
→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→
              MAIN MENU
            →→→→→→→→→→→→

      A) PRINT INPUT FORM
      B) ENTER INPUT DATA
      C) CHANGE DATA
      D) DATA REPORT
      E) PROFIT & LOSS REPORT
      F) ALTERNATIVE PRICE RELATIONSHIPS
      G) WHAT-IF?
      H) SAVE & LOAD DATA

WHICH (A-H)?
```

In all cases throughout this program, you will respond to questions simply by typing the answer where the cursor appears. When you have a nonflashing cursor and do not want to answer the question with new data, you can press the ▓▓▓ key and the computer will proceed to the next part of the program. Whatever was stored in the computer for that question will be retained.

Remember always to press ▓▓▓ after entering data except when a flashing cursor appears where you are making menu choices. In this case, you only need to press a single key.

Step 2. — The Main Menu

The Main Menu gives you eight selections from which to choose. You will respond by pressing one of the keys from A to H. (When using the Main Menu, you do not need to press ▓▓▓ after pressing the letter.) As you go through this tutorial you will keep returning to the Main Menu for further selections.

For the purpose of this tutorial, you will proceed through all eight selections. When you are more familiar with this program you may choose to skip some parts.

As the first selection please press ▓ for "A) PRINT INPUT FORM" and proceed to Step 3.

Step 3. — Print Input Form

After you have pressed ⬚ from the Main Menu, the computer will respond with a message to set the printer head to the top of the paper. This will center the report on the paper and allow the printer to form feed to the top of the next page when the printing is complete.

If your printer is already turned on, you will be instructed to press ⬚ to proceed with the printing. If the printer is not turned on, you will be instructed to turn it on and press ⬚ . In some cases, if the printer has the power switch turned off, the computer might respond with a "PRINTING" message for a few seconds and then return to the Main Menu. Simply turn the printer on and press ⬚ from the Main Menu and proceed as before.

The computer will respond to the correct procedure by printing a "FEEDER PIG PROFIT ANALYSIS INPUT DATA SHEET." An example of this form is shown in Fig. 3-1. The purpose of this form is to allow you to accumulate the needed input data before you run the program. Since this data may come from several sources, this form can be used to gather the data; however, if you already have the needed data at hand, the form will not be necessary.

For the purpose of this tutorial, you may proceed without filling out the Input Data Form since we will be using default data already in the program.

When the printer has completed printing the form, your computer will return you to the Main Menu at which time you may proceed to Step 4.

Step 4. — Enter Input Data

Pressing ⬚ from the Main Menu will take you to the "ENTER INPUT DATA" section of the program. This section allows you to enter all the data needed to allow the computer to produce the various reports. After you press ⬚ from the Main Menu the computer screen will show the following:

```
→→→→→→→→→→→→→→→→
   ENTER  INPUT  DATA
→→→→→→→→→→→→→→→→→
```

```
PLEASE ENTER TODAY'S DATE (1/1/82) ?


PLEASE ENTER YOUR NAME
           OR
THE NAME OF THE REPORT (AGRI-CALC) ?


PLEASE ENTER THE NUMBER OF HOGS YOU PLAN TO RAISE ( 100 ) ?
```

This information will appear on some of the reports. When you type in this information and press [ ] , a new screen will appear as follows:

```
I.  MARKET INFORMATION

A.  EXPECTED MARKET PRICE ($/CWT) ( 52 ) ?
```

The preceding screen gives the type of input data and the specific input data being requested. Details of the exact meaning of this input data are given in Chapter 5. During the first session after you have loaded the program, the number in the parenthesis is the default data that is built into the program. However, once you have entered your own data during a session and return to this section of the program, the number in the parenthesis will be the number you have entered.

When you are entering your own data, you will simply type the required data at the cursor and then press [ ] . The next request for data will then appear on the screen. You will continue to answer the questions until you are automatically returned to the Main Menu.

For the purpose of this tutorial, you will allow the default data to be retained simply by pressing [ ] when requests for data are made. This will allow the default data to remain. Even when you enter your own data, the default data will not be lost but will be put back into the computer when the program is reloaded.

After you have answered all the questions (by pressing [ ] for this tutorial), the computer will automatically return you to the Main Menu where you may proceed with Step 5.

Step 5. — Data Report

This section will allow you to review the data in the computer and to print a record of this data for future use. Pressing ▣ from the Main Menu will cause the following screen to appear:

```
→→→→→→→→→→→→→→→→→→→
  INPUT DATA REPORT
→→→→→→→→→→→→→→→→→→→

A)   PRINT TO PRINTER
B)   PRINT TO SCREEN
C)   MAIN MENU




WHICH (A-C)?
```

Selecting ▣ from the above menu will show you the first section of the Data Report on the screen. Since the computer screen can show only 16 lines at a time, you can look at the report one section at a time and "turn the page" to the next section simply by pressing ENTER . (Press ▣ to return to the Main Menu.) After you view the last section, the computer will automatically return you to the above menu.

Selecting ▣ from the above menu lets you print out the report. The computer will ask you to set your printer to the top of the paper and turn your printer on, if it is not on already. When this is done, press ENTER and the printer will proceed to print the full Input Data Report that should look like the one shown in Fig. 5-1. When the report is finished, the computer will return you to the above menu. Now press ▣ to return to the Main Menu and proceed to Step 6.

Step 6. — Change Data

This section allows you to change any of the data that you have already entered. Press ▣ on the Main Menu and the following screen will appear:

```
→→→→→→→→→→→→→→→,
DATA FOR CHANGES
→→→→→→→→→→→→→→→→
```

A.	MARKET PRICE($/CWT)	H.	PRICE OF SUPPLEMENT($/TON)
B.	MARKET WEIGHT(LBS)	I.	LABOR($/HR)
C.	MARKET EXPENSES($/HD)	J.	OTHER OPERATING EXPS.($/HD)
D.	PURCHASE PRICE($/HD)	K.	CURRENT INTEREST RATE/YR(%)
E.	STARTING WEIGHT(LBS/HD)	L.	FIXED COSTS($/HD)
F.	PURCHASE EXPENSES($/HD)	M.	LABOR(HRS/HD)
G.	CORN PRICE($/BU)	N.	DEATH LOSS(%)

```
            O.   FEEDING PROGRAM
```

```
WHICH  (A-O)  (Z=NONE)?
```

Pressing any letter from A through O will clear the screen and put the title of the data to be changed on the screen. If you want to change the date, the report title, or the number of hogs to be raised, you can go back to the "Enter Input Data" section on the Main Menu and make the change there. In general, if you have five or more items to change, it would be just as easy to use the "Enter Input Data" option rather than the "Change Data" option. For the purpose of this tutorial, you may select any of the choices for inspection but you will retain the default data simply by pressing ▮▮▮ in response to the cursor. This will always return you to the above menu where you can make another selection. When you have finished this section, press ▮ to return to the Main Menu and proceed to Step 7.

Step 7. — Profit and Loss Report

In this section you will review and print the Profit & Loss Report. Selecting ▮ from the Main Menu will produce the following screen:

```
→→→→→→→→→→→→→→→→→→→→→→→→
PROFIT AND LOSS REPORT
→→→→→→→→→→→→→→→→→→→→→→→→

     A)   PRINT TO PRINTER
     B)   PRINT TO SCREEN
     C)   MAIN MENU
```

```
WHICH  (A-C)?
```

You should first select ▓ in order to view the report on the screen. As in the previous step, you will view one section of the report at a time, pressing ▓▓▓ to advance to the next section. After viewing the last section, you will be returned to the above menu.

Select ▓ to print the complete Profit and Loss Report. The report printed out should look like the one in Fig. 6-1. When this report is finished, you will be returned to the above menu. Press ▓ to return to the Main Menu where you may proceed to Step 8.

Step 8. — *Alternative Price Relationships*

This section will allow you to review and print the various Alternative Price Relationships reports. A sample of what these reports should look like can be seen in Fig. 7-1.

Selecting ▓ from the Main Menu will produce the following screen (after some calculations are finished):

```
➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔ ➔➔➔➔➔➔ ➔➔➔➔➔➔➔➔➔ ➔➔➔➔ ➔➔➔➔➔➔➔
      ESTIMATED RETURN, BREAK-EVEN BUYING AND SELLING PRICES
                     AND VALUE OF CORN
➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔➔ ➔➔➔➔➔➔➔➔➔ ➔➔ ➔➔➔➔➔➔➔➔➔ ➔➔➔➔➔➔➔➔

                    A)   PRINT TO PRINTER
                    B)   PRINT TO SCREEN
                    C)   MAIN MENU




WHICH (A-C)?
```

Select ▓ to display four different tables on the screen, one at a time. Select ▓ to print these tables on the printer.

When the report is finished, you will automatically return to the Alternative Price Relationship menu. Press ▓ to return to the Main Menu and proceed to Step 9.

Step 9. — What-If?

The What-If? section will allow you to change any data items already entered and to see the resulting changes in the Profit/Loss(P/L) ($/HD), Cost of Money(C/M) ($/HD), Value of Corn(V/C) ($/BU), Break-Even Buying Prices(B/B) ($/HD), and Break-Even Selling Prices(B/S) ($/CWT). A detailed explanation of these functions is given in Chapter 8.

Select ▓ from the Main Menu to produce the following menu:

```
                →→→→→→→→→→
                WHAT-IF?
                →→→→→→→→→→

     A) PROFIT/LOSS(P/L) ($/HD) IF---
     B) COST OF MONEY(C/M) ($/HD) IF---
     C) VALUE OF CORN(V/C) ($/BU) IF---
     D) BREAK-EVEN BUYING PRICES(B/B) ($/HD) IF---
     E) BREAK-EVEN SELLING PRICES(B/S) ($/CWT) IF---
     F) MAIN MENU


WHICH (A-F)?
```

From this menu, you can select any of the above items for analysis. For this tutorial, press ▓ for "PROFIT/LOSS". An "INPUT DATA FOR ANALYSIS" menu will appear. From this menu, press ▓ and the following screen will appear:

```
A.  EXPECTED MARKET PRICE ($/CWT)
                       % CHANGE FROM      P/L     % CHANGE FROM
                         ORIGINAL        ($/HD)     ORIGINAL
ORIGINAL VALUE = 52      ( 0 %)          $1.90      ( 0 %)

      NEW VALUE=?
```

This shows the screen using the default data. By selecting ▓ from the previous menu, the Market Price was brought up for analysis. The original default value was $52.00 which resulted in a profit of $1.90/hd. These are the figures you saw in the Profit and Loss Report. You will also notice that the computer is asking the question, "NEW VALUE = ?". On typing a new value and pressing ▓ENTER▓, a new value for the P/L will appear along with the value for "% CHANGE FROM ORIGINAL". For example, if you entered 48 for the new value, the new

P/L will be –$6.63/hd. The 48 is a change of –7.7% from the original 52 and the –$6.63/hd is a –449.0% change from the original $1.90/hd. You may experiment with this function by entering new values and observing the resulting changes.

One other value also appears towards the bottom of the screen. This is the C/E RATIO which is the Cause and Effect Ratio. This is the ratio of the percent change in the P/L value to the percent change in the input data figure. All the values of the What-If? function are explained in detail in Chapter 8. You will notice at the bottom of the screen a one line menu that gives you a choice of **C)**ONTINUING, **P)**RINTING, **N)**EW INPUT DATA, **W)**HAT-IF, and **M)**AIN MENU. You can choose what you want to do next by pressing the first letter of any of these choices. After entering eight new values, a new one-line menu will appear that will give you the choice of **C)**ONTINUING TO CLEAR SCREEN AND START NEW VALUES or **P)**RINT RESULTS.

After you have tried this function out, return to the Main Menu and proceed to Step 10.

Step 10. — Save and Load Data

This function allows you to save data to or load data from the program disk. In other words, when you have entered your own data and created the desired reports, you may want to save this data for future use. You do this by pressing ▓ from the Main Menu. This will result in a Save or Load Data menu, which looks like this:

```
→→→→→→→→→→→→→→→→→→→→→→
    SAVE OR LOAD INPUT DATA
→→→→→→→→→→→→→→→→→→→→→→→→

A.   SAVE INPUT DATA TO DISK

B.   LOAD INPUT DATA FROM DISK

C.   MAIN MENU




WHICH (A-C)?
```

Press ⬛ from this menu to get a menu that will give you the choice of five files in which to store your data. For this tutorial, store the default data in file PIG1 by pressing ⬛ from this menu. When this is complete, you will be returned to the Main Menu. When you are through, you may return to the Save and Load section and retrieve the original data from the PIG1 file.

To load this data back into the program, press ⬛ from the Save or Load Data menu. Next, select one of the five files. Since you originally stored your default data in the PIG1 file, retrieve it from this file by pressing ⬛ After entering the data from the disk drive and making some calculations, the program will return you to the Main Menu. You may go back to one of the other functions to verify that the data loaded correctly.

You have now tried all the functions of this program. You should read Chapters 3 through 9 for detailed discussions of all the functions, data items, and reports. These chapters will help you to determine what input data to use and what the reports mean to you. Remember that the computer is only as accurate as the data you put in. It can manipulate the data very rapidly and can produce many useful reports but they are only as good as the data. The formulas for calculating the reports are accurate and have been tested thoroughly. The formulas never change, only the data that you enter changes.

Chapter 3

PRINT INPUT FORM AND ENTER INPUT DATA

In order to use this program, you must enter data involving market information, production information, and production costs. These questions request information about purchasing feeder pigs, marketing the finished hogs, feed and other costs, and the feeding program. Press on the Main Menu to print an Input Form. This form is shown in Fig. 3-1 and can be used to accumulate the needed data ahead of time. If this is not necessary then you may proceed by pressing (Enter Input Data). The computer will ask you for the date, your name or the name of the report, and the number of hogs to be raised:

```
→→→→→→→→→→→→→→→→→→
ENTER INPUT DATA
→→→→→→→→→→→→→→→→→→

PLEASE ENTER TODAY'S DATE (1/1/82) ?


PLEASE ENTER YOUR NAME
            OR
THE NAME OF THE REPORT (AGRI-CALC) ?


PLEASE ENTER THE NUMBER OF HOGS YOU PLAN TO RAISE ( 100 ) ?
```

This information will appear on some of the reports and helps to identify the report for future reference. The number of hogs will be used to calculate total amounts for the Profit/Loss report. After you answer these questions, the following screen will appear:

```
I.   MARKET INFORMATION

A.   EXPECTED MARKET PRICE ($/CWT) ( 52 ) ?
```

Each question will be stated in a brief form with the unit of measurement in parentheses, e.g., ($/CWT). Also in parentheses is the present value of this data already in the computer memory. You can keep this present value simply by pressing . You can enter a new value by typing the value at the cursor and then pressing . In either case, a new request for data will appear on the screen after you press .

```
                      FEEDER PIG INPUT DATA



PREPARED FOR:    --DATA INPUT SHEET--
DATE:  1/1/82



_____


I.    MARKET INFORMATION

      A.   EXPECTED MARKET PRICE ($/CWT)------------      ----------
      B.   MARKET WEIGHT (LBS)-----------------------     ----------
      C.   MARKETING EXPENSES ($/HD)-----------------     ----------
      D.   PURCHASE PRICE OF FEEDER PIGS ($/HD)-----      ----------
      E.   BEGINNING WEIGHT OF FEEDER PIGS (LBS/HD)-      ----------
      F.   PURCHASE EXPENSES ($/HD)-----------------      ----------


II.   PRODUCTION COSTS

      G.   PRICE OF CORN ($/BU)---------------------      ----------
      H.   PRICE OF SUPPLEMENT ($/TON)---------------     ----------
      I.   LABOR ($/HR)----------------------------      ----------
      J.   OTHER OPERATING EXPENSES ($/HD)----------      ----------
      K.   CURRENT INTEREST RATE/YEAR (%)-----------      ----------
      L.   FIXED COSTS ($/HD)-----------------------     ----------


III.  PRODUCTION INFORMATION

      M.   LABOR REQUIRED (HRS/HD)-------------------     ----------
      N.   DEATH LOSS (%)--------------------------      ----------


IV.   YOUR OWN RATION PROGRAM

      O.   CORN FED (BU/HD)------------------------      ----------
      P.   PROTEIN SUPPLEMENT FED (LBS/HD)----------      ----------
      Q.   FEEDING PERIOD (DAYS)--------------------      ----------
```

Fig. 3-1.

Each question is shown in the following section as it will appear on the computer screen. Following this, a more detailed description will be given. Then there is a detailed discussion of the input data. The following questions are in the same order as they will appear on your computer screen.

```
I.   MARKET INFORMATION

A.   EXPECTED MARKET PRICE ($/CWT) ( 52 ) ?
```

Expected Market Price at Market Time (Dollars per Hundred Weight)

The expected market price is the price you feel that you will be able to get for your hogs at the end of the feeding period. This price is entered as dollars per hundred weight.

```
I.  MARKET INFORMATION

B.  MARKET WEIGHT (LBS)

    1)    190 LBS
    2)    200 LBS
    3)    210 LBS
    4)    220 LBS
    5)    230 LBS
    6)    240 LBS
    7)    250 LBS


MAKE SELECTION (1-7) ( 4 ) ?
```

Market Weight at Market Time (Pounds)

The expected market weight should be the average weight of the hogs at market time. The weight is entered in pounds. A choice of seven weights is given. Select the weight nearest the expected market weight by typing a number from 1 to 7 and pressing ▐▜▌.

```
I.  MARKET INFORMATION

C.  MARKETING EXPENSES ($/HD) ( 1.5 ) ?
```

Marketing Expenses When Hogs Are Marketed (Dollars per Head)

The marketing expenses represent commission expenses, trucking, yardage, and any other miscellaneous costs that you have to pay when you market your hogs. Enter this expense as dollars per head.

Note: If the expected market price entered in question A is a net price (market price less marketing expenses), then you should enter a zero for marketing expenses here.

```
I.   MARKET INFORMATION

D.   PURCHASE PRICE OF FEEDER PIGS ($/HD) ( 35 ) ?
```

Purchase Price of Feeder Pigs (Dollars per Head)

The purchase price of feeder pigs should be the price you expect to pay for the feeder pigs. Enter this as dollars per head.

```
I.   MARKET INFORMATION

E.   BEGINNING WEIGHT OF FEEDER PIGS (LBS/HD)

    1)    30 LBS
    2)    40 LBS
    3)    50 LBS
    4)    60 LBS
    5)    70 LBS
    6)    80 LBS
    7)    90 LBS
    8)   100 LBS


MAKE SELECTION (1-8) ( 3 ) ?
```

Starting Weight of Feeder Pigs (Pounds per Head)

The starting weight of the feeder pig should be the average weight in pounds per head. A choice of eight weights is given. Select the weight nearest the expected (or actual) beginning weight by typing a number from 1 to 8 and pressing ⬚ .

```
I.   MARKET INFORMATION

F.   PURCHASE EXPENSES ($/HD) ( 1.5 ) ?
```

Total Purchase Expenses (Dollars per Head)

Purchase expenses include items such as commission, trucking, etc., that you have to pay when you purchase feeder pigs.

Note: If the total cost (including purchase expenses) of purchasing feeder pigs was entered in question D, then enter a zero as the purchase expense in this question.

```
II.  COSTS
G.  PRICE OF CORN ($/BU) ( 3.3 ) ?
```

Price of Corn Fed to the Hogs (Dollars per Bushel)

This price is used to calculate part of the total expenses associated with finishing the feeder pigs. Feed costs will be calculated using this price along with the total corn requirement as specified in the default feeding program, or in your own ration program.

```
II.  COSTS
H.  PRICE OF SUPPLEMENT ($/TON) ( 320 ) ?
```

Price of Supplement Fed to the Hogs (Dollars per Ton)

The price of supplement is used to calculate part of the total expenses associated with the finishing of feeder pigs. Feed costs will be calculated using this price along with the total supplement requirement as specified in the default feeding program, or in your own ration program.

```
II.  COSTS
I.  LABOR ($/HR) ( 5 ) ?
```

Wage Rate of Operator Labor (Dollars per Hour)

This cost is the wage rate for you and your family and is used in conjunction with the labor required to calculate the desired return to operator labor. This labor cost does not include the cost of hired labor since it is included in "Other Operating Expenses" in question J.

```
II.  COSTS
J.  OTHER OPERATING EXPENSES ($/HD) ( 7 ) ?
```

Cost of Other Operating Expenses (Dollars per Head)

This category of costs should include:
  1. Veterinary Expenses
  2. Utilities
  3. Bedding

4. Supplies
5. Equipment repairs
6. Power and Machinery Expenses
7. Hired Labor
8. Other Miscellaneous Operating Expenses

All of the above costs should be on the basis of dollars per head.

```
II.   COSTS
K.   CURRENT INTEREST RATE/YEAR (%) ( 13 ) ?
```

Rate of Interest on Borrowed Money (Percent Interest Rate)

The percent interest rate should represent the rate of interest that you would need to pay if you borrowed money to purchase feeder pigs and feed. This rate will be used in calculating the total interest expenses. This rate will also be used to calculate the cost of money used in the Profit/Report and the What-If? section. You must realize that this is strictly an estimated figure that is used to lay out a budget. The cost of money is considered an expense item and is subtracted from the expected profit in order to derive a realistic net profit that reflects all possible costs.

```
II.   COSTS
L.   FIXED COSTS ($/HD) ( 6 ) ?
```

The Fixed Costs Associated with Raising Feeder Pigs (Dollars per Head)

The fixed cost should include:
1. Cost of depreciation
2. Interest on the investment in facilities and equipment
3. Property taxes
4. Insurance on the animals and facilities

```
III.   PRODUCTION INFORMATION
M.   LABOR REQUIRED (HRS/HD) ( 1 ) ?
```

Total Labor Required (Hours per Head)

This requirement should represent only the labor supplied by you and your family. The cost of hired labor was included in "Other Operating Expenses" entered in question J. The labor requirement is used with question I to calculate the labor expense figure shown in the Profit Analysis Report.

```
III.   PRODUCTION INFORMATION

N.   DEATH LOSS (%)  ( 3 ) ?
```

Proportion of Pigs Expected to Die (Percent)

The death loss rate should be the percentage of the purchased pigs that you expect to die. This figure will be used in the calculation of gross sales to reflect the assumed death loss.

At this point you will be asked:

```
III.   PRODUCTION INFORMATION

DO YOU WISH TO ENTER YOUR OWN RATION PROGRAM (Y/N) (Y) ?
```

If you are going to use the default values for the feeding program, type ▨ and press ▨ . If you use the default values, the computer will select data from a built-in table which has the same information as Table 1 on page 31. Table 1 gives average daily gain, corn fed, and supplement fed based on the beginning and finished weight. As can be seen, the ADG, Corn, and Supp figures depend on both the beginning and finishing weight of the hog.

If you answer "yes" by typing ▨ to the question, the computer will ask you three questions. These are as follows:

```
III.   PRODUCTION INFORMATION

DO YOU WISH TO ENTER YOUR OWN RATION PROGRAM (Y/N) (Y) ?

O.   CORN FED (BU/HD) ( 9.6 ) ?
P.   PROTEIN SUPPLEMENT FED (LBS/HD) ( 107 ) ?
Q.   FEEDING PERIOD (DAYS) ( 135 ) ?
```

The Amount of Corn Fed Each Hog During Growth (Bushels per Head)

This figure represents the amount of corn you feed each hog during the total feeding period and should be given in bushels per head. The figure, along with the price of corn, will be used to calculate the total cost of corn in the Profit Analysis Report. This figure is also used to calculate the interest on feed.

Table 1. Average Daily Gain (ADG), Corn Consumption, And Protein Supplement (SUPP) Consumption Required For Hogs Of Various Beginning And Finish Weights

		190	200	210	220	230	240	250	
						Finish Weight			
	30	1.14	1.18	1.21	1.23	1.26	1.29	1.31	**ADG**
		7.90	8.50	9.20	9.90	10.60	11.40	12.10	**Corn (bu)**
		96	102	109	116	123	131	138	**Supp (lbs)**
	40	1.19	1.21	1.24	1.27	1.30	1.32	1.34	**ADG**
B		7.60	8.20	8.90	9.60	10.30	11.10	11.90	**Corn (bu)**
E		89	96	102	109	117	124	132	**Supp (lbs)**
G	50	1.22	1.25	1.28	1.31	1.32	1.35	1.38	**ADG**
I		7.20	7.90	8.60	9.30	10.00	10.80	11.50	**Corn (bu)**
N		85	91	98	104	112	119	127	**Supp (lbs)**
N	60	1.25	1.28	1.31	1.33	1.36	1.39	1.40	**ADG**
I		6.90	7.50	8.20	8.90	9.60	10.40	11.10	**Corn (bu)**
N		79	86	92	99	107	114	122	**Supp (lbs)**
G	70	1.29	1.31	1.34	1.37	1.40	1.41	1.44	**ADG**
W		6.50	7.10	7.80	8.50	9.20	10.00	10.80	**Corn (bu)**
E		74	80	87	94	101	109	116	**Supp (lbs)**
I	80	1.32	1.35	1.37	1.40	1.42	1.44	1.47	**ADG**
G		6.10	6.70	7.40	8.10	8.80	9.50	10.30	**Corn (bu)**
H		68	74	81	88	95	103	110	**Supp (lbs)**
T	90	1.35	1.38	1.40	1.42	1.45	1.48	1.49	**ADG**
		5.60	6.20	6.90	7.60	8.30	9.10	9.90	**Corn (bu)**
		61	68	74	81	89	96	104	**Supp (lbs)**
	100	1.38	1.40	1.42	1.45	1.48	1.50	1.52	**ADG**
		5.10	5.80	6.50	7.20	7.90	8.60	9.40	**Corn (bu)**
		55	61	68	75	82	90	97	**Supp (lbs)**

The Amount of Protein Supplement Fed Each Hog During Growth (Pounds per Head)

This amount represents the quantity of supplement you feed each hog during the total feeding period and should be given in pounds per head. This value, along with the price of supplement, will be used to calculate the total cost of protein supplement in the Profit Analysis Report. It is also used to calculate the interest on feed.

Total Length of Feeding Period (Days)

For this question, you need to supply the total length of the feeding period for your hogs. This figure will be used to calculate the Average Daily Gain. It is also used to calculate the cost of money since this is the period for which the money outlay will be needed.

After completing the "ENTER INPUT DATA" section, you will be automatically returned to the Main Menu. At this point, you may choose to do one of the following:

1. D) Data Report — This section allows you to review all input data on the computer screen or print the Input Data Report. From this report you can determine if all your data is correct. If you need to change any data, proceed to the next section.

2. C) Change Data — In this section, you will be given a complete menu of all the input data. You may then select any individual data item to change.

3. E) Profit And Loss Report — This section allows you to review the Profit Report on the computer screen or print it on your printer.

4. F) Alternative Price Relationships — This section shows the effect various price relationships have on the profitability of feeding hogs along with the various break-even buying and selling prices. The value received for corn is also calculated. The results can be viewed on the computer screen or printed out on paper.

5. G) What-If? — The "What-If?" section allows you to change any data already entered and see the resulting changes in the

Profit/Loss(P/L) ($/ hd). Cost of Money(C/M) ($/ hd), Value of Corn (V/C) ($/BU), Break - Even Buying Prices (B/B) ($/HD), and Break- Even Selling Prices(B/S) ($/CWT).

6. H) Save And Load Data — This part of the program allows you to save the data that you entered into the computer. It also allows you to recover data previously saved.

Chapter 4

CHANGE DATA

This section allows you to change any of the data already entered into the computer. It gives you a menu of all input data and allows you to select any of the data items for change. It also shows you what the present data is and gives you the option of keeping or changing it.

Select ▓ from the Main Menu. The computer screen will display the following:

```
>>>>>>>>>>>>>>>>>>>
   DATA FOR CHANGES
>>>>>>>>>>>>>>>>>>>

A.  MARKET PRICE($/CWT)        H.  PRICE OF SUPPLEMENT($/TON)
B.  MARKET WEIGHT(LBS)         I.  LABOR($/HR)
C.  MARKET EXPENSES($/HD)      J.  OTHER OPERATING EXPS.($/HD)
D.  PURCHASE PRICE($/HD)       K.  CURRENT INTEREST RATE/YR(%)
E.  STARTING WEIGHT(LBS/HD)    L.  FIXED COSTS($/HD)
F.  PURCHASE EXPENSES($/HD)    M.  LABOR(HRS/HD)
G.  CORN PRICE($/BU)           N.  DEATH LOSS(%)
              O.  FEEDING PROGRAM


WHICH (A-O) (Z=NONE)?
```

Press any letter from ▓ through ▓ (you do not need to press ▓▓▓▓ since this is a flashing cursor) to clear the screen and put the title of the data to be inspected and changed on the screen. For example, if you select ▓ from the preceding menu, this screen will appear:

```
I.  MARKET INFORMATION

A.  EXPECTED MARKET PRICE ($/CWT) ( 52 ) ?
```

This screen gives you the title of the data to be considered and the value of the data presently in the computer. You now have two options. If you decide to retain the present data, simply press ▓▓▓▓ and you will be returned to the Data for Changing menu, where you can select other data for changing or return to the Main Menu. If you decide to change the data, just type in the new value and press ▓▓▓▓ . The new data has now replaced the old data in the computer's memory. (Remember that the default data is a permanent part of the program and will be

recovered when you reload the program. Also remember that the data you Saved on the disk will still be there and can still be recovered.)

After you have changed the data, you will go back to the Data for Changing menu where you can select another data item for change or return to the Main Menu. After each piece of data is entered, the computer will recalculate all values and be ready to run any of the reports you want.

Chapter 5

DATA REPORT

This section will produce a Data Report of all the input data that is presently in the computer. This is either the data you just entered or data retrieved from one of the data files.

Selecting ▧ from the Main Menu will display the following menu after some calculations are completed:

```
→→→→→→→→→→→→→→→→→
   INPUT DATA REPORT
→→→→→→→→→→→→→→→→→

A)   PRINT TO PRINTER
B)   PRINT TO SCREEN
C)   MAIN MENU
```

```
WHICH (A-C)?
```

If you select ▧ from the above menu, the computer will remind you to set the printer head to the top of the page and turn the printer on, if it is not on already. When the printer is ready, it will print out the Input Data Report. An example of this report using the default data is shown in Fig. 5-1.

```
            FEEDER PIG INPUT DATA



PREPARED FOR:   AGRI-CALC
DATE:   1/1/82


_____


I.   MARKET INFORMATION

      A.   EXPECTED MARKET PRICE ($/CWT)------------   $52.00
      B.   MARKET WEIGHT (LBS)-----------------------   220.00
      C.   MARKETING EXPENSES ($/HD)-----------------    $1.50
      D.   PURCHASE PRICE OF FEEDER PIGS ($/HD)-----   $35.00
      E.   BEGINNING WEIGHT OF FEEDER PIGS (LBS/HD)-    50.00
      F.   PURCHASE EXPENSES ($/HD)------------------    $1.50
```

Fig. 5-1.

```
II.   PRODUCTION COSTS

      G.   PRICE OF CORN ($/BU)----------------------     $3.30
      H.   PRICE OF SUPPLEMENT ($/TON)--------------   $320.00
      I.   LABOR ($/HR)------------------------------     $5.00
      J.   OTHER OPERATING EXPENSES ($/HD)----------     $7.00
      K.   CURRENT INTEREST RATE/YEAR (%)-----------     13.00
      L.   FIXED COSTS ($/HD)------------------------     $6.00


III.  PRODUCTION INFORMATION

      M.   LABOR REQUIRED (HRS/HD)-------------------      1.00
      N.   DEATH LOSS (%)---------------------------      3.00


IV.   YOUR OWN RATION PROGRAM

      O.   CORN FED (BU/HD)--------------------------      9.60
      P.   PROTEIN SUPPLEMENT FED (LBS/HD)----------    107.00
      Q.   FEEDING PERIOD (DAYS)--------------------    135.00
```

Fig. 5-1.—cont.

Select ▓ from the above menu to view the Input Data Report one section at a time on the computer screen. Since the report is longer than the 16 lines available on the screen, it will be displayed in sections. After you look at each section, go to the next section by pressing ▓ .

Select ▓ to return to the Main Menu.

Chapter 6

PROFIT/LOSS REPORT

Selecting ▓ from the Main Menu will produce the following menu after some calculations are completed:

```
→→→→→→→→→→→→→→→→→→→→→→→→
    PROFIT AND LOSS REPORT
→→→→→→→→→→→→→→→→→→→→→→→→

        A)   PRINT TO PRINTER
        B)   PRINT TO SCREEN
        C)   MAIN MENU




WHICH (A-C)?
```

Select ▓ to print the complete Feeder Pig Profit & Loss Analysis Report. This report is less than 66 lines long and will fit on one sheet of normal 8½ in. x 11 in. paper. A sample report is shown in Fig. 6-1.

```
            FEEDER PIG PROFIT & LOSS ANALYSIS

BUDGET FOR: AGRI-CALC
DATE: 1/1/82
----------------------------------------------------------------
                                  HEAD      /CWT    /CWT   % OF
                                            SOLD    GAIN   SALES
PRODUCTION PERFORMANCE
   PURCHASE WEIGHT(LBS)          50.00
   SELLING WEIGHT(LBS)          220.00
   TOTAL GAIN(LBS)              170.00
   AVERAGE DAILY GAIN(LBS/DAY)    1.26
   DAYS ON FEED                 135
   TOTAL FEED FED(LBS)          645               394

VALUE OF PRODUCTION
   SALES($ 52  /CWT)           $110.97   $52.00  $67.91 100%
   PURCHASE COST                $35.00   $16.40  $21.42  32%
      GROSS MARGIN              $75.97   $41.00  $46.49  68%

FEED REQUIREMENTS & COST
   CORN    9.6 BU AT $ 3.3 /BU  $31.68   $14.85  $19.39  29%
   PROTEIN SUPP   107 LBS
   AT $ .16 /LB                 $17.12    $8.02  $10.48  15%
      TOTAL FEED COSTS          $48.80   $22.87  $29.87  44%
```

Fig. 6-1.

```
OTHER VARIABLE EXPENSES
   SELLING & BUYING COSTS          $3.00      $1.41     $1.84    3%
   OPERATING EXPENSES              $7.00      $3.28     $4.28    6%
      TOTAL VARIABLE EXPENSES     $10.00      $4.69     $6.12    9%

TOTAL FEED & OTHER VAR. EXP.      $58.80     $27.55    $35.99   53%


RETURNS TO COVER---
 LABOR, MGT., FACIL., & RISK.--   $17.17      $8.04    $10.51   15%
     LESS LABOR EXPENSES--------   $5.00      $2.34     $3.06    5%

 MGT., FACILITIES, & RISK-----    $12.17      $5.70     $7.45   11%
     LESS FIXED EXPS.(FACIL.)---   $6.00      $2.81     $3.67    5%

PROFIT (-LOSS)----------------     $6.17      $2.89     $3.77    6%
                                 -------------------------------
     LESS COST OF MONEY INVESTED
     DURING 135 DAYS ON FEED AT A
     13 % ANNUAL INTEREST RATE.-   $4.27      $2.00     $2.61    4%

NET PROFIT (-LOSS)------------     $1.90      $0.89     $1.16    2%
                                 -------------------------------
---------------------------------------------------------------------

SUMMARY OF TOTALS (BASED UPON 100 HOGS)
   SALES                           $11,096.80
      LESS:
       PURCHASE COST      $3,500.00
       FEED COST          $4,880.00
       VARIABLE COST      $1,000.00
       LABOR               $500.00
       FIXED EXPENSES      $600.00
       COST OF MONEY       $426.68
      NET PROFIT                     $190.12
```

Fig. 6-1—cont.

Select ▓ to view the report on the screen. Since the screen can display only 16 lines, smaller sections of the report will appear at a time. After you review each section, press ▓▓▓▓ to advance to the next section.

Select ▓ to return to the Main Menu.

The Profit and Loss Report shows returns and expenses per head, per hundred weight sold, and per hundred weight gain. The report also shows the cost of money invested during the feeding period at the specified annual interest rate and the summary of totals based on the number of hogs raised.

The next section goes over this report item by item. Please refer to Fig. 6-1 while reading this section.

Production Performance — This section presents the production performance based on the data entered and various calculations that the computer does for you.

Purchase Weight (Lbs) — This is the weight selected under part "E" of the Data Entry section.

Selling Weight (Lbs) — This is the weight selected under part "A" of the Data Entry section.

Total Gain (Lbs) — The total gain is the difference between the selling weight and the purchase weight.

Average Daily Gain (Lbs/Day) — The average daily gain represents the gain necessary to achieve the gain required for the days the animals are on feed. If you use the default ration program, this value is selected from a built-in table in the computer. If you use your own ration program, this figure is calculated by dividing the total weight gain by the number of days on feed.

Days on Feed — In the default ration program, this figure is calculated by dividing the total weight gain by the average daily weight gain. If you use your own ration program, you specify the feeding period (the number of days on feed).

Total Feed Fed (Lbs) — This is the total amount of corn and supplement fed the hog during the days on feed. These amounts are supplied either by the default ration program or by your own ration program. The feed fed per hundred weight gain is this figure divided by the total hundred weight gain which takes into account the death loss.

Value of Production — This gives you the difference between the purchase price and the selling price.

Sales ($52/CWT) — The sales value per head is the sales price per hundred weight multiplied by the average weight of the market hogs sold. This calculation takes into account the death loss and is calculated as follows:

sales = price of market hogs/cwt x sale weight in cwt x (1–death rate)

Based on the default values and tutorial example values, this would be:

$$\$52.00 \times 2.20 \text{ lbs} \times (1-.03) = \$110.97$$

Sales per hundred weight sold is equal to sales divided by selling weight after death loss is taken into account.

Sales per hundred weight gain is equal to sales divided by the total hundred weight gain after death loss is taken into account.

Purchase Cost — This cost represents the original cost of the feeder pigs per head, per cwt sold, and per cwt gain.

Gross Margin — The gross margin is the difference between the selling price and the purchase cost. This value is given as a per head, per cwt sold, and a per cwt gain value.

Feed Requirements and Cost — This represents the cost of feeding your pigs and is calculated using the feed prices and the feed requirements specified in the default or your own ration program.

Corn 9.6 BU at $3.3/BU — This figure is the result of multiplying the total corn required per hog times the cost of corn per bushel. The amount is the total cost of corn fed per head, per cwt sold, and per cwt gain.

Protein Supp 107 Lbs At $.16/Lb — This figure is the result of multiplying the total protein supplement required (lbs) per hog times the cost of supplement per pound. It is given as the total cost of supplement fed per head, per cwt sold, and per cwt gain.

Total Feed Costs — This is the sum of the total corn and protein supplement cost.

Other Variable Expenses — These expenses are all variable expenses not covered by production cost.

Selling and Buying Costs — This variable expense is the sum of the marketing expenses ($/hd) and the purchase expenses ($/hd). It is

given on a per head, per hundred weight sold and per hundred weight gain basis.

Operating Expenses — This was entered as Other Operating Expenses ($/hd) and is expressed on a per head, per hundred weight sold and per hundred weight gain basis.

Total Variable Expenses — This is the sum of the selling and buying costs and other operating expenses.

Total Feed and Other Variable Expenses — This is the grand total of all feed and variable costs.

Returns To Cover

Labor, Management, Facilities, and Risk — This figure is calculated by subtracting the total feed and other variable expenses from the gross margin. This represents the amount left after covering all expenses except labor, fixed costs, and the cost of money.

Facilities, Management, and Risk — This is the amount left after subtracting the labor expenses from the above amount and represents the amount left after covering all expenses except fixed costs and the cost of money.

Profit — This figure is the amount left after subtracting the facilities cost from the above amount and represents the return to management and risks. It is the amount that is left for the operator (you) after all expenses except the cost of money have been subtracted.

Net Profit — This figure is calculated by subtracting the cost of money from the above profit figure. The cost of money figure is based on the use of money during the feeding period and is figured at the annual interest rate which was entered earlier. The cost of money represents the cost of the money invested in feed, animals, purchase expenses, labor, other operating costs, and fixed costs. The cost of money is calculated as follows:

cost of money (\$) = (cost of animals + corn cost + fixed expenses x interest rate x number of days on feed/365 + 1/2 (supplement + labor + other operating expenses) x interest rate x number of days on feed/365

Summary of Totals (Based on 100 Hogs) — This section totals the above figures for sales, total costs, and net profit based on the number of hogs you specified.

Chapter 7

ALTERNATIVE PRICE RELATIONSHIPS

Selecting ▓ from the Main Menu will produce the following menu after some calculations are completed:

```
→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→
      ESTIMATED RETURN, BREAK-EVEN BUYING AND SELLING PRICES
                    AND VALUE OF CORN
→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→

                A)   PRINT TO PRINTER
                B)   PRINT TO SCREEN
                C)   MAIN MENU




WHICH (A-C)?
```

Press ▓ from this menu to print the following four tables.

1. Net Profit
2. Break-Even Buying Prices
3. Break-Even Selling Prices
4. Value of Corn Fed to Hogs

Press ▓ to produce the same charts on the computer screen, one chart at a time.

Press ▓ to return to the Main Menu.

What the Alternative Price Relationship Tables Mean

In general, these tables show the effect that various price relationships have on the profitability of feeding hogs, break-even buying prices, break-even selling prices, and value received for corn.

An example of the default (tutorial) tables is shown in Fig. 7-1. The following section discusses what each table means.

NET PROFIT($/HD) IF---

PURCHASE	SELLING PRICE($/CWT) IS--				
PRICE($/HD)	$48.00	$50.00	$52.00	$54.00	$56.00
$31.00	-$2.44	$1.83	$6.09	$10.36	$14.63
$33.00	-$4.54	-$0.27	$4.00	$8.27	$12.53
$35.00	-$6.63	-$2.37	$1.90	$6.17	$10.44
$37.00	-$8.73	-$4.46	-$0.19	$4.07	$8.34
$39.00	-$10.83	-$6.56	-$2.29	$1.98	$6.24

BREAK-EVEN BUYING PRICES($/HD) TO COVER ALL COST---

	WHEN SUPPLEMENT PRICE IS $320.00/TON &				
SELLING	CORN PRICE($/BU) IS--				
PRICE($/CWT)	$2.90	$3.10	$3.30	$3.50	$3.70
$48.00	$32.51	$30.59	$28.67	$26.75	$24.83
$50.00	$36.58	$34.66	$32.74	$30.82	$28.90
$52.00	$40.65	$38.73	$36.81	$34.89	$32.97
$54.00	$44.73	$42.81	$40.89	$38.97	$37.05
$56.00	$48.80	$46.88	$44.96	$43.04	$41.12

BREAK-EVEN SELLING PRICES($/CWT) TO COVER ALL COST--

	WHEN SUPPLEMENT PRICE IS $320.00/TON &				
PURCHASE	CORN PRICE($/BU) IS--				
PRICE($/HD)	$2.90	$3.10	$3.30	$3.50	$3.70
$31.00	$47.26	$48.20	$49.14	$50.09	$51.03
$33.00	$48.24	$49.18	$50.13	$51.07	$52.01
$35.00	$49.22	$50.17	$51.11	$52.05	$53.00
$37.00	$50.21	$51.15	$52.09	$53.03	$53.98
$39.00	$51.19	$52.13	$53.07	$54.02	$54.96

VALUE OF CORN($/BU) FED TO HOGS AFTER COVERING ALL COST---

	WHEN SUPPLEMENT PRICE IS $320.00/TON &				
PURCHASE	SELLING PRICE($/CWT) IS---				
PRICE($/HD)	$48.00	$50.00	$52.00	$54.00	$56.00
$31.00	$3.06	$3.48	$3.91	$4.33	$4.75
$33.00	$2.85	$3.27	$3.70	$4.12	$4.55
$35.00	$2.64	$3.06	$3.49	$3.91	$4.34
$37.00	$2.43	$2.86	$3.28	$3.70	$4.13
$39.00	$2.22	$2.65	$3.07	$3.50	$3.92

Fig. 7-1.

Net Profit

The first table showing Fig. 7-1 reports the net profit per head after covering all expenses. This can also be thought of as the total returns to cover management and risk. A negative number on this chart indicates that under that combination of purchase and selling prices, the returns are not sufficient to cover management and risk. This indicates that a larger return can be obtained by selling the feed and not feeding hogs.

If you do not have an alternative use for the facilities and labor, you may decide to feed hogs even though all costs are not being covered. If the return is larger than the labor, fixed expenses and the cost of money then this price combination will generate sufficient revenues to pay all costs.

As an example, from the default table, if the purchase price/hd were $31.00 and the selling price/cwt were $52.00, then the profit of $6.09 would be realized after covering all cost, including the cost of money. This means that you can profitably invest your money in the feeder pig operation.

Break-Even Buying Prices

The second table of Fig. 7-1 represents the break-even buying prices that a producer could pay under alternative selling prices and corn prices. This is the maximum price a producer can pay for feeder pigs and still pay all expenses. In this case, the supplement price is held at the originally entered price and the corn price is varied over a range of plus and minus $0.20/bu from the originally entered price.

As an example from this table, if the corn price is $3.50/bu and the expected selling price of the hog is $54.00/cwt, then the maximum that you can pay for feeder pigs is $38.97/hd.

Break-Even Selling Prices

The third table in Fig. 7-1 is the break-even selling prices required to cover all expenses under alternative purchase prices and corn prices. This is the minimum price a producer can sell his pigs for and still pay all expenses. In this case, the supplement price is held at the originally

entered price and the corn price is varied over a range of plus and minus $0.20/bu from the originally entered price.

As an example from this table, if the corn price is $3.30/bu and the expected purchase price/hd is $37.00 then the minimum selling price to cover all expenses would be $52.09/cwt.

Value of Corn Fed to Hogs

This table gives the values received for corn under various purchase and market price combinations. The amounts in the table represent the value of corn after all other expenses have been paid.

As an example, if the feeder pigs are purchased for $37.00/hd and market hogs are expected to be sold for $54.00/cwt, then the value of the corn fed to these hogs would be $3.70/bu. This return can be compared to the expected market price of corn to help you decide whether feeding hogs at this time would be profitable.

When the last table has been printed or displayed on the screen, you will return automatically to the previous menu, which will allow you to print or display more charts or return to the Main Menu.

Chapter 8

WHAT-IF?

Selecting ▓ from the Main Menu will produce the following screen after some calculations are completed:

```
→→→→→→→→→
  WHAT-IF?
→→→→→→→→→→

A) PROFIT/LOSS(P/L) ($/HD) IF---
B) COST OF MONEY(C/M) ($/HD) IF---
C) VALUE OF CORN(V/C) ($/BU) IF---
D) BREAK-EVEN BUYING PRICES(B/B) ($/HD) IF---
E) BREAK-EVEN SELLING PRICES(B/S) ($/CWT) IF---
F) MAIN MENU


WHICH (A-F)?
```

Selecting any item from the above menu except for "Main Menu" will produce the following screen. For tutorial purposes, select ▓ which will allow you to analyze the profit/loss function. The other functions will be explained later.

What-If? Analysis of the Profit/Loss Function

```
→→→→→→→→→→→→→→→→→→→→→→→→
  INPUT DATA FOR ANALYSIS
→→→→→→→→→→→→→→→→→→→→→→→→

A.  MARKET PRICE($/CWT)      H.  PRICE OF SUPPLEMENT($/TON)
B.  MARKET WEIGHT(LBS)       I.  LABOR($/HR)
C.  MARKET EXPENSES($/HD)    J.  OTHER OPERATING EXPS.($/HD)
D.  PURCHASE PRICE($/HD)     K.  CURRENT INTEREST.RATE/YR(%)
E.  STARTING WEIGHT(LBS/HD)  L.  FIXED COSTS($/HD)
F.  PURCHASE EXPENSES($/HD)  M.  LABOR(HRS/HD)
G.  CORN PRICE($/BU)         N.  DEATH LOSS(%)
              O.  FEEDING PROGRAM


WHICH (A-O) (Z=NONE)?
```

From this menu, any of the original data items can be selected for analysis by pressing the appropriate letter. The basic purpose of the "What-If?" function is to allow you to analyze completely the effect any item has on the profit/loss, cost of money, value of corn, break-even

buying prices, and break-even selling prices. In this example, you will be analyzing the final profit/loss figure. This corresponds to the bottom line figure on your Profit/Loss Report. The following example will first show the original value of the item selected and the outcome that results from this value together with the rest of the data presently in the computer.

```
A.   EXPECTED MARKET PRICE ($/CWT)
                          % CHANGE FROM       P/L      % CHANGE FROM
                             ORIGINAL        ($/HD)       ORIGINAL
ORIGINAL VALUE = 52        ( 0 %)           $1.90        ( 0 %)

      NEW VALUE=?
```

This screen shows an example using the default data. was selected from the "What-If?" menu in order to analyze the profit/loss function. was also selected from the "Input Data for Analysis" menu in order to analyze the market price. As you can see, the original default value for the market price was $52.00 which resulted in a profit of $1.90/hd, which is the same figure you got on the Profit/Loss Report in the tutorial section. Note that any changes made in the data in the What-If? section will not change the original values used or derived in the other sections of the program. When you return to any of the other sections, you will find all the data as you left it.

When the above screen first appeared, it also requested a "NEW VALUE = ?". After you type a new value and press ⬛⬛ , as shown below, a new value for the P/L will appear along with values for "% CHANGE FROM ORIGINAL". The (–5.8%) figure indicates a –5.8% change from the original market price of $52.00 to the market price of $49.00. The (–336.7%) figure indicates a –336.7% change in the P/L figure from the original $1.90/hd to –$4.50/hd.

```
A.   EXPECTED MARKET PRICE ($/CWT)
                          % CHANGE FROM       P/L      % CHANGE FROM
                             ORIGINAL        ($/HD)       ORIGINAL
ORIGINAL VALUE = 52        ( 0 %)           $1.90        ( 0 %)

      NEW VALUE=? 49       (-5.8 %)         -$4.50       (-336.7 %)
      NEW VALUE=? 50       (-3.8 %)         -$2.37       (-224.5 %)
      NEW VALUE=? 51       (-1.9 %)         -$0.23       (-112.2 %)
      NEW VALUE=? 53       ( 1.9 %)          $4.04       ( 112.2 %)
      NEW VALUE=? 54       ( 3.8 %)          $6.17       ( 224.5 %)
      NEW VALUE=? 55       ( 5.8 %)          $8.30       ( 336.7 %)


     (C/E RATIO =    58.05 )
   C)ONTINUE, P)RINT, N)EW INPUT DATA, W)HAT-IF, M)AIN MENU
```

Also notice, near the bottom of the screen, the value (C/E RATIO = 58.05). This is the cause/effect ratio which is the ratio of the percent change in the P/L value to the percent change in the input data figure. In the first example, this would be (–336.7%)/(–5.8%) = 58.05. The C/E Ratio indicates the relative effect that changing the data item has on the P/L figure. A high number, such as in this example, indicates a relatively large effect. Other items such as "Interest on Feed & Animals" would have a smaller C/E ratio thus indicating a smaller effect. The cause/effect ratio will stay about the same when analyzing any one input data item. For each different data item analyzed, the C/E ratio will usually be different.

Once you have entered the first new value and have seen the resulting percent changes and the new P/L figure, you may choose what you want to do next from the menu at the bottom of the screen. If you want to **C)**ONTINUE with the analysis, then press 🔲. If you want to **P)**RINT the results displayed on the screen, then press 🔲. Selecting 🔲 will take you back to the What-If? menu where you may select another function for analysis. Selecting 🔲 will take you back to the Input Data for Analysis menu where you can select another input for analysis. If you want to return to the **M)**AIN MENU, then press 🔲.

When you have entered eight new values, a new one-line menu will appear at the bottom of the screen that will give you the choice of **C)**ONTINUING TO CLEAR SCREEN AND START NEW VALUES, or **P)**RINT RESULTS.

It should be noted that certain variables will not affect the particular function you are analyzing. In the case of the P/L analysis, if you have selected the default ration program, then a selection of "O. FEEDING PROGRAM" from the Input Data for Analysis menu will produce a message stating that you must select your own ration program in order to analyze its effect. This can be done by going back to the Main Menu and selecting the "C) CHANGE DATA" section. You then can select the "O. FEEDING PROGRAM" section and select your own ration program at which time you can return to the What-If? section for further analysis.

An item that will have no effect when you are using your own ration program is the beginning weight. Since, in this case, you have

determined the total days on feed, the corn fed, and the supplement fed, the beginning weight has no effect on the final profit. This is because the beginning weight is used only in conjunction with the market weight in the default feeding program to find the amount of corn, supplement, and the days on feed from the built-in table.

What-If? Analysis of the Cost of Money (C/M)

Selecting ⬛ from the What-If? menu will produce the "Input Data for Analysis" menu. The cost of money corresponds to the figure given in the Profit/Loss Report except that you now can perform a What-If? analysis on it. This figure is based on how much money you might earn if you had taken the money spent on the feeding operation during the feeding period and invested it at the interest rate which you previously entered into the program. The final cost of money figure is given as dollars per head, which can be compared to the final dollars per head profit/loss figure. If the C/M figure exceeds the P/L figure, then you might want to reconsider whether investing in feeder pigs is the best thing to do right now.

By changing different data items in the What-If? analysis for both P/L and C/M, you may be able to come up with a combination that would result in a better chance of the P/L exceeding the C/L amount. Remember that the data is only estimated when you are projecting a budget. Small differences in the P/L and C/M may not be enough on which to base a decision. You will have to use your judgment in such a case. If the difference between the P/L and C/M is larger, then a decision is easier to make.

The C/M figure is based on the purchase price of feeder pigs, purchase expenses, cost of feed, labor, other operating expenses, fixed costs and the interest rate. The following data items from the "Input Data for Analysis" menu affect the C/M figure. All other items have no effect on C/M.
D.   PURCHASE PRICE
F.   PURCHASE EXPENSES
H.   PRICE OF SUPPLEMENT
J.   OTHER OPERATING EXPENSES
K.   CURRENT INTEREST RATE/YEAR
O.   FEEDING PROGRAM

If you selected the default feeding program, then the corn fed, supplement fed, and feeding period are fixed. If you select your own ration program, you can then vary these figures and see the resulting changes in the C/M figure.

What-If? Analysis of the Value of Corn (V/C)

Selecting ▓ from the What-If? menu will produce the "Input Data for Analysis" menu. The value of corn (V/C) figure corresponds to the figures given in Alternative Price Relationships section. The V/C figure represents the value received for corn after all expenses have been paid. The value calculated here can be compared to the expected corn price to provide additional information about whether feeding hogs at this time would be profitable.

By selecting different variables from the "Input Data for Analysis" menu, you can see just what effect a particular variable has on the value of corn. As in the other functions, certain data items have no effect on the V/C figure. In order for the items in the feeding program to have an effect, you must select your own feeding program and not the default program. If you are using your own feeding program, then the starting weight will have no effect since this figure is used only in the default feeding program. All other items will effect the V/C function except, as noted, when you use the default feeding program.

What-If? Analysis of the Break-Even Buying Prices

Selecting ▓ from the What-If? menu will produce the "Input Data for Analysis" menu. This break-even buying (B/B) figure corresponds to the figure given in the chart in the Alternative Price Relationship section. The B/B figure represents the maximum purchase price ($/hd) you can pay for feeder pigs and just pay all expenses.

By selecting various items from the "Input Data for Analysis" menu, you can see the effect that different items have on the B/B figure. As before, if you use the default feeding program then items in this program will not change the B/B figure. Under your own feeding program, changing the starting weight will have no effect. In all cases, changing the purchase price will have no effect.

What-If? Analysis of the Break-Even Selling Prices

Selecting ▓ from the What-If? menu will produce the "Input Data for Analysis" menu. The break-even selling (B/S) figure corresponds to the figures given on the Alternative Price Relationship charts. This figure represents the minimum selling price for the feeder pigs to just cover all costs.

By selecting various items from the "Input Data for Analysis" menu, you can see the effect that different items have on the B/S figure. If you use the default feeding program, then the expected market weight and the items in the feeding program will have no effect on the B/S figure. Under your own feeding program, expected market weight and beginning weight will have no effect. All other items will effect the B/S figure to some degree.

The What-If? function was developed to allow you complete flexibility in analyzing your feeder pig operation. After entering any set of costs and production data, you then can investigate the effect of changing any variable. Remember that with any new set of costs and production data, the effect of changing data can vary. With each new set of data, you should do a What-If? analysis to get an idea of how this particular model looks. Try a number of different combinations to get a dynamic view of how any particular function is affected. Remember that when you fill up the What-If? screen, you can print out the results on your printer for comparison with other What-If? screens.

Chapter 9

SAVE AND LOAD DATA

This section allows you to save and retrieve data that you have entered into the computer. This is your own data and overrides the "default data" that is permanently part of the program. With this option, you may save and retrieve data for five complete analysis programs. This allows you to save data and retrieve it at a later date for review or revision. If you need to save more than five sets of data, you can print out the Data Report. Since the entry time for the data is relatively short, you can use this method for data that may occasionally be used while using the save and load method for data that will be retrieved more often.

Selecting ⬚ from the Main Menu will produce the following menu:

```
→→→→→→→→→→→→→→→→→→→→→→→→→→
    SAVE OR LOAD INPUT DATA
→→→→→→→→→→→→→→→→→→→→→→→→→→

A.   SAVE INPUT DATA TO DISK

B.   LOAD INPUT DATA FROM DISK

C.   MAIN MENU



WHICH (A-C)?
```

Selecting ⬚ will allow you to save all the data presently in the computer. The data will be saved under a file name on your program disk. This will allow you to retrieve this set of data at a later date and reconstruct all the reports and charts created with this data set.

Selecting ⬚ will allow you to load any previously saved data. The data will be retrieved under the file name you assigned when you stored it.

Selecting ⬚ will return you to the Main Menu.

Select ⬚ to display the following:

```
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
    PLEASE SELECT ONE OF THE FOLLOWING FILE NAMES TO STORE DATA ON
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

        (RECORD THIS FILE NAME FOR USE WHEN RELOADING THIS DATA)

                    A)  PIG1
                    B)  PIG2
                    C)  PIG3
                    D)  PIG4
                    E)  PIG5
                    F)  RETURN TO MAIN MENU


    WHICH (A-F)?
```

This menu allows you to store up to five different data files. It also allows
you to return to the Main Menu. If you need to save more than five files,
you can always save the data report printout and reenter it later. You
should record the file name, such as PIG1, so you can load the proper
file at a future date. A good place to record this file name is on the print-
out of the reports based on this data. This way, you can retrieve the
data for modifications and revised reports at a later date.

Select ▒ to display the following:

```
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>.>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
        PLEASE SELECT THE NAME OF THE FILE TO BE RETRIEVED
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

                    A)  PIG1
                    B)  PIG2
                    C)  PIG3
                    D)  PIG4
                    E)  PIG5
                    F)  RETURN TO MAIN MENU


    WHICH (A-F)?
```

The data stored in the file corresponding to the letter pressed will be
retrieved from the disk and, after some calculations, you will be ready
to continue the program with the new data. If you try to recover a file
that does not have any data in it, the computer will tell you that there is
no data in the file and tell you to press ▒▒▒ to try another file. It will
then return you to the file selection menu.

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